

Claims:

This listing of claims is provided for the Examiner's convenience:

Listing of Claims:

1. - 35. (Cancelled)

36. (Previously Presented) A method comprising:

receiving electronically, at a computer system, a first transaction record from an organization located in a first jurisdiction, the first transaction record being received according to a first protocol, and the first transaction record having a first format and including first transaction data stored in the first format and describing a completed first transaction between the organization and a customer located in a second jurisdiction;

converting, by the computer system, the first transaction data from the first format into a second format;

accessing, by the computer system and based on information in the first transaction record, a first business rule configured by the organization and describing a second transaction expected to be completed between the organization and the customer in response to the completed first transaction, the first business rule including an acceptable time period in which the second transaction is expected to be completed;

receiving, by the computer system, a second transaction record from the organization including second transaction data describing completion of the second transaction and including a time attribute related to a time of completion of the second transaction;

processing, by the computer system, the second transaction record using the first business rule, the processing including:

based on the time attribute included in the second transaction record received from the organization, determining a time period between completion of the first transaction between the organization and the customer and completion of the second transaction between the organization and the customer;

comparing the determined time period with the acceptable time period included in the first business rule;

based on comparison results, determining, by the computer system, whether the second transaction between the organization and the customer was completed within the acceptable time period; and

processing the second transaction record based on whether the second transaction between the organization and the customer was completed within the acceptable time period;

tracking, by the computer system, information related to business transactions between the organization and the customer to identify a schedule of recurring transactions that occur in a lifecycle of business between the organization and the customer;

determining, by the computer system and in response to processing the second transaction record, a next expected transaction between the organization and the customer and a second time period for completion of the next expected transaction based on the tracked schedule of recurring transactions that occur in the lifecycle of business between the organization and the customer and jurisdictional rules that define required time periods for completion of transactions that differ between jurisdictions;

storing, by the computer system, at least some portions of the first transaction record and the second transaction record; and

displaying the results of the processing and storing, by the computer system, to at least one of the organization and the customer.

37. (Previously Presented) The method of claim 36 wherein:

receiving the second transaction record from the organization comprises receiving the second transaction record according to the first protocol, with the second transaction record having the first format and including the second transaction data stored in the first format and describing the completed second transaction between the organization and the customer; and

processing the second transaction record comprises:

converting the second transaction data from the first format into the second format;

determining in an automated manner whether the first business rule is satisfied by the second transaction data;

accessing, when the first business rule is satisfied, a second business rule configured by the organization and describing a third transaction expected to be completed between the organization and the customer in response to the completed second transaction; and

receiving a third transaction record from the organization including third transaction data describing completion of the third transaction.

38. (Previously Presented) The method of claim 37 further comprising repeating the operations of converting, determining, accessing, and receiving from claim 37 for a series of successive transactions between the organization and the customer, each of the series of successive transactions between the organization and the customer identifying a succeeding transaction in the series through a business rule.

39. (Previously Presented) The method of claim 36 wherein:

receiving the second transaction record from the organization comprises receiving the second transaction record according to the first protocol, with the second transaction record having the first format and including the second transaction data stored in the first format and describing the completed second transaction between the organization and the customer; and processing the second transaction record comprises:

converting the second transaction data from the first format into the second format;

determining whether the first business rule is satisfied by the second transaction data; and

informing the organization of whether the first business rule is satisfied.

40. (Previously Presented) The method of claim 39 wherein determining whether the first business rule is satisfied comprises determining whether the second transaction was completed within a time period required by the first business rule.

41. (Previously Presented) The method of claim 36 further comprising:
receiving a third transaction record from the organization, the third transaction record being received according to the first protocol, and the third transaction record having the first format and including third transaction data stored in the first format and describing a completed third transaction between the organization and the customer;

converting the third transaction data from the first format into the second format;
determining that the third transaction is an unexpected transaction, an unexpected transaction being a transaction that is expected to succeed a given transaction that has not been completed; and

informing the organization that the third transaction is an unexpected transaction.

42. (Previously Presented) The method of claim 36 further comprising:
receiving a third transaction record from another organization, the third transaction record being received according to another protocol, and the third transaction record having another format and including third transaction data stored in the other format and describing a completed third transaction between the other organization and another customer;

converting the third transaction data from the other format into the second format;
accessing, based on information in the third transaction record, a third business rule configured by the other organization and describing a fourth transaction expected to be completed between the other organization and the other customer in response to the completed third transaction; and

receiving a fourth transaction record from the other organization including fourth transaction data describing completion of the fourth transaction.

43. (Previously Presented) The method of claim 42 wherein receiving the fourth transaction record comprises receiving the fourth transaction record according to the other protocol, with the fourth transaction record including the fourth transaction data stored in the other format and describing a completed fourth transaction between the other organization and the other customer, the method further comprising:

converting the fourth transaction data from the other format into the second format;

determining, by the computer system, whether the third business rule is satisfied by the fourth transaction data;

accessing, based on whether the third business rule is satisfied, a fourth business rule configured by the other organization and describing a fifth transaction expected to be completed between the other organization and the other customer in response to the completed fourth transaction; and

receiving a fifth transaction record from the other organization including fifth transaction data describing completion of the fifth transaction.

44. (Previously Presented) The method of claim 43 further comprising repeating the operations of converting, determining, accessing, and receiving from claim 43 for a series of successive transactions between the other organization and the other customer, each of the series of successive transactions between the other organization and the other customer identifying a succeeding transaction in the series through a business rule.

45. (Previously Presented) The method of claim 38 further comprising:

receiving a fourth transaction record from another organization, the fourth transaction record being received according to another protocol, and the fourth transaction record having another format and including fourth transaction data stored in the other format and describing a completed fourth transaction between the other organization and other customer;

converting the fourth transaction data from the another format into the second format;

accessing, based on information in the fourth transaction record, a fourth business rule configured by the other organization and describing a fifth transaction expected to be completed between the other organization and the other customer in response to the completed fourth transaction;

receiving a fifth transaction record from the other organization including fifth transaction data describing completion of the fifth transaction;

receiving the fifth transaction record from the other organization, the fifth transaction record being received according to the other protocol, and the fifth transaction record having the

other format and including the fifth transaction data stored in the other format and describing a completed fifth transaction between the other organization and the other customer;

converting the fifth transaction data from the other format into the second format;

determining, by the computer system, whether the fourth business rule is satisfied by the fifth transaction data;

accessing, based on whether the fourth business rule is satisfied, a fifth business rule configured by the other organization and describing a sixth transaction expected to be completed between the other organization and the other customer in response to the completed fifth transaction;

receiving a sixth transaction record from the other organization including sixth transaction data describing completion of the sixth transaction; and

repeating the operations of receiving a transaction record of an expected transaction, converting a format of the transaction record of the expected transaction to a second format, determining whether the transaction record of the expected transaction satisfies a business rule, accessing a further business rule describing a further transaction expected to be completed, and receiving a transaction record for the further expected transaction, for a series of successive transactions between the other organization and the other customer, each of the series of successive transactions between the other organization and the other customer identifying a succeeding transaction in the series through a business rule.

46. (Previously Presented) The method of claim 38 further comprising receiving from the organization an update for the first business rule and applying the updated first business rule to future transaction completed between the organization and the customer.

47. (Previously Presented) The method of claim 38 further comprising providing the organization electronic access to transaction records for the series of successive transactions.

48. (Previously Presented) The method of claim 38 wherein:
the organization includes a first energy supplier, and
the other organization includes a second energy supplier.

49. (Previously Presented) The method of claim 38 wherein:
the organization includes a utility organization, and
the other organization includes an energy supplier.
50. (Previously Presented) The method of claim 48 wherein:
the completed first transaction is a bill for energy supplied to a customer by the first
energy supplier; and
the second transaction is an expected payment of the bill by the customer.
51. (Previously Presented) The method of claim 48 wherein:
the completed first transaction is an enrollment by a customer to receive energy from the
first energy supplier; and
the second transaction is an expected response from the customer to the enrollment.
52. (Cancelled)
53. (Previously Presented) The method of claim 36 wherein processing the second
transaction record based on whether the second transaction between the organization and the
customer was completed within the acceptable time period comprises:
conditioned on the second transaction between the organization and the customer not
being completed within the acceptable time period:
processing the second transaction record;
sending a message to the organization indicating that the second transaction
between the organization and the customer was not completed within the acceptable time
period; and
storing a record indicating that the second transaction between the organization
and the customer was not completed within the acceptable time period.
- 54, - 56. (Cancelled)

57. (Previously Presented) A computer readable storage medium having embodied thereon a computer program, the computer program comprising instructions for:

receiving electronically, at a computer system, a first transaction record from an organization located in a first jurisdiction, the first transaction record being received according to a first protocol, and the first transaction record having a first format and including first transaction data stored in the first format and describing a completed first transaction between the organization and a customer located in a second jurisdiction;

converting, by the computer system, the first transaction data from the first format into a second format;

accessing, by the computer system and based on information in the first transaction record, a first business rule configured by the organization and describing a second transaction expected to be completed between the organization and the customer in response to the completed first transaction, the first business rule including an acceptable time period in which the second transaction is expected to be completed;

receiving, by the computer system, a second transaction record from the organization including second transaction data describing completion of the second transaction and including a time attribute related to a time of completion of the second transaction;

processing, by the computer system, the second transaction record using the first business rule, the processing including:

based on the time attribute included in the second transaction record received from the organization, determining a time period between completion of the first transaction between the organization and the customer and completion of the second transaction between the organization and the customer;

comparing the determined time period with the acceptable time period included in the first business rule;

based on comparison results, determining, by the computer system, whether the second transaction between the organization and the customer was completed within the acceptable time period; and

processing the second transaction record based on whether the second transaction between the organization and the customer was completed within the acceptable time period;

tracking, by the computer system, information related to business transactions between the organization and the customer to identify a schedule of recurring transactions that occur in a lifecycle of business between the organization and the customer;

determining, by the computer system and in response to processing the second transaction record, a next expected transaction between the organization and the customer and a second time period for completion of the next expected transaction based on the tracked schedule of recurring transactions that occur in the lifecycle of business between the organization and the customer and jurisdictional rules that define required time periods for completion of transactions that differ between jurisdictions;

storing, by the computer system, at least some portions of the first transaction record and the second transaction record; and

displaying the results of the processing and storing, by the computer system, to at least one of the organization and the customer.

58. (Cancelled)

59. (Previously Presented) A computer-implemented method comprising:

maintaining, by a transaction computer system, a database of configurable business rules that control transactions between an organization and clients of the organization, the configurable business rules being based on preferences of at least one of the organization and the clients and based on rules of a jurisdiction governing transactions between the organization and the clients, wherein the configurable business rules include:

a first business rule that controls transactions between the organization and a first client, the first business rule being configured based on preferences of at least one of the organization and the first client and at least one rule of a first jurisdiction governing transactions between the organization and the first client, and

a second business rule that controls transactions between the organization and a second client, the second business rule being configured based on preferences of at least one of the organization and the second client and at least one rule of a second jurisdiction governing transactions between the organization and the second client, wherein:

the second jurisdiction is different than the first jurisdiction,

the at least one rule of the second jurisdiction is different than the at least one rule of the first jurisdiction, and

the second business rule is configured differently than the first business rule based on the at least one rule of the second jurisdiction being different than the at least one rule of the first jurisdiction;

tracking, by the transaction computer system, information related to business transactions between the organization and clients, including the first client and the second client, to identify a schedule of recurring transactions that occur in a lifecycle of business between the organization each of the clients;

receiving, at the transaction computer system from a first computer system associated with the organization, a message identifying a business transaction between the organization and a client, the business transaction including a request business transaction and a response business transaction that is performed by the client in response to the request business transaction as part of the business transaction;

based on the message identifying the business transaction, determining, by the transaction computer system, whether the client associated with the business transaction is the first client or the second client;

conditioned on a determination that the client is the first client, accessing, by the transaction computer system, the first business rule that controls business transactions between the organization and the first client;

conditioned on a determination that the client is the second client, accessing, by the transaction computer system, the second business rule that controls business transactions between the organization and the second client;

based on the accessed business rule, identifying, by the transaction computer system, a time period in which the response business transaction to the request business transaction is due

from the client, wherein the time period is based on a preference of the organization in receiving responses to request business transactions and at least one rule of a jurisdiction governing transactions between the organization and the client, and the time period is different based on whether the accessed business rule is the first business rule or the second business rule;

sending, from the transaction computer system to a second computer system associated with the client, a message identifying the request business transaction and the time period in which the response business transaction to the request business transaction is due from the client;

monitoring, by the transaction computer system, messages received from the second computer system associated with the client for a message related to the response business transaction;

based on the monitoring, determining, by the transaction computer system, whether a message related to the response business transaction has been received from the second computer system associated with the client within the time period;

conditioned on a determination that a message related to the response business transaction has been received from the second computer system associated with the client within the time period:

processing, by the transaction computer system, the business transaction between the organization and the client based on the message related to the response business transaction, and

determining, by the transaction computer system, a next expected transaction between the organization and the client and a second time period for completion of the next expected transaction based on the tracked schedule of recurring transactions that occur in the lifecycle of business between the organization and the client and jurisdictional rules that define required time periods for completion of transactions that differ between jurisdictions; and

conditioned on a determination that a message related to the response business transaction has not been received from the second computer system associated with the client within the time period:

sending, from the transaction computer system to the second computer system associated with the client, a reminder message indicating that the response business transaction has not been received; and

sending, from the transaction computer system to the first computer system associated with the organization, an error message indicating that the response business transaction has not been performed by the client.

60. (Previously Presented) The method of claim 59 wherein:

conditioned on the accessed business rule being the first business rule, the time period is a first time period that satisfies the preference of the organization based on the at least one rule of the first jurisdiction allowing the first time period; and

conditioned on the accessed business rule being the second business rule, the time period is a second time period that does not satisfy the preference of the organization based on the at least one rule of the second jurisdiction not allowing the first time period.

61. (Previously Presented) The method of claim 36 further comprising using the tracked schedule of recurring transactions that occur in the lifecycle of business between the organization and the customer to ensure that appropriate business transactions are processed at right times by appropriate organizations and appropriate customers.

62. (Previously Presented) The method of claim 36:

wherein tracking information related to business transactions between the organization and the customer to identify a schedule of recurring transactions that occur in a lifecycle of business between the organization and the customer comprises tracking business transactions that have occurred between the organization and the customer to predict future transactions that are expected to occur in the lifecycle of business between the organization and the customer; and

determining a next expected transaction between the organization and the customer and a second time period for completion of the next expected transaction based on the tracked schedule of recurring transactions that occur in the lifecycle of business between the organization and the customer and jurisdictional rules that define required time periods for completion of transactions

that differ between jurisdictions comprises setting the next expected transaction between the organization and the customer in accordance with the predicted future transactions that are expected to occur in the lifecycle of business between the organization and the customer.

63. (Previously Presented) The method of claim 36;

wherein tracking information related to business transactions between the organization and the customer to identify a schedule of recurring transactions that occur in a lifecycle of business between the organization and the customer comprises tracking time periods of business transactions that have occurred between the organization and the customer to identify a timing schedule of transactions that have occurred in the lifecycle of business between the organization and the customer; and

determining a next expected transaction between the organization and the customer and a second time period for completion of the next expected transaction based on the tracked schedule of recurring transactions that occur in the lifecycle of business between the organization and the customer and jurisdictional rules that define required time periods for completion of transactions that differ between jurisdictions comprises determining the second time period for completion of the next expected transaction based on the tracked timing schedule of transactions that have occurred in the lifecycle of business between the organization and the customer and providing an exception condition when the next expected transaction is not completed within the second time period.

64. (Previously Presented) The method of claim 36 wherein tracking information related to business transactions between the organization and the customer to identify a schedule of recurring transactions that occur in a lifecycle of business between the organization and the customer comprises monitoring a sequence of business transactions over a course of a lifecycle of a business process between the organization and the customer.

65. (Previously Presented) The method of claim 36 further comprising matching a request business transaction with a corresponding response business transaction in order to determine whether the request business transaction and the corresponding response business transaction

Applicant : Stuart J. Solomon et al.
Serial No. : 10/027,664
Filed : December 20, 2001
Page : 15 of 21

Attorney's Docket No.: 12587-0022001 / D01-
108/01316-00/US

have satisfied the tracked schedule of recurring transactions that occur in the lifecycle of business between the organization and the customer.